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## THE REINCARNATION OF JAMES EIGHTS, ANTARCTIC EXPLORER

BY DR. JOHN M. CLARKE

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IN the early days of the last century, when geography was yet young and there still remained some undiscovered nooks of the earth, the inquisitive merchant marine of our still younger and very saucy Yankee republic was finding its way into the farthest ports of the Seven Seas. The sails of the Ship of State had bellied with pride in the achievements of our canvas navy of 1812-1814, and the confident commercial enterprise which followed gave birth to a generation of agile shipmasters who recked as little of the terrors of the sea as does to-day the commander of the mightiest of our steel ocean machines. In these days before steam, the skippers of Stonington, New Bedford, New London—whalers in fact, but explorers in essence—became the pathfinders of the waters; searching their quarry in the Atlantic and Pacific, from the Arctic to the Antarctic. They never held back from cruising unknown waters in the hope of finding some new thing, and in some of these New England shipmasters grew up a fine sense of devotion to their country's credit. They sought out knowledge of foreign parts that their country might have the name and fame of discovery, and many a little brig with its stars and stripes roamed among the islands of the South Sea and into ports of the Orient, where to-day and long since the American colors are as rare as leviathans.

Edmund Fanning was one of these early Yankee venturers and one of the few who has left an account of his "seventy voyages" about the world in the years of his active life from 1792 to 1832. Fanning early became a shipmaster of the first class and, successful at that, as time passed he was a patron and promoter of voyages. America was the country of his adoption, and having adopted her he had pride in her progress and confidence in her future. If the young nation were to play her part with dignity she must do her share in the exploration of the unknown world, and, possessed of this theme, he had sufficient influence on the Congress to convince it of its duty to send out an exploring expedition over the southern seas, for down in those Antarctic latitudes where the American sealers were already finding rich fields were the mysterious Auroras, the mythical isles east of the Horn, of which returning vessels had brought enamouring tales.

So the Congress of 1812 decided upon a first official voyage of discovery into waters out of our control, and Fanning was commissioned

by President Madison commander of the two brigs *Volunteer* and *Hope*. The banner of hope was at the peak for a little while, but the same Congress soon pulled it down with a proclamation of war against Great Britain. Sixteen more years Fanning plied Congress with his project before it would again give heed to his plans for such a voyage of discovery, and in 1829 the shipmaster had grown too old to go to sea again; but early that year the United States Senate reported in favor of a South Sea expedition, and, though providing no money, it gave a moral support to the proposition and Captain Fanning was informally designated as "agent" of this first semi- or quasi-official "Voyage of Discovery." Fanning, filled with patriotic zeal, at once put two brigs into commission, the whalers and sealers, *Annawan*, Nathaniel B. Palmer, captain, and the *Seraph*, Benjamin Pendleton, captain and commander. These vessels sailed from Connecticut ports for the South Seas in October, 1829. On their return a report of the expedition made by Commander Pendleton to the "agent," Fanning, was transmitted to Congress and was published by its order. It is needless to add that such sentimental support "battered no parsnips," so that the guarantors of the expedition had to seek their returns in seal oil and skins. More and worse than that, the commander in his report poured forth a tale of lamentations over what he thought was the failure of the expedition, excused its seeming shortcomings by stories of disease, dissension and almost mutiny among his crews, and it is hard to believe that Congress could find anything in such a calamitous tale to be worth printing at the public expense.

This is my introduction to the forgotten story of the brief scientific career of James Eights, of Albany.

It is an odd name, that of Eights, and it seems to be entirely extinct to-day in the region that knew it best. There is a tradition (perhaps nothing more) that the name was originally Van der Achten, which translated means of *more than one eight*, in other words, *Eights*. This seems rather far fetched and the name as it appears in the records of the Dutch families of Manhattan is Eight or Echt. It was not at all the practise of the Hudson valley Dutch to translate their surnames, after the manner of the French Canadians in America; but, at all events, the family stock was from Holland several generations before the birth of the scion whose name we desire to rescue from oblivion.

James Eights was the son of Dr. Jonathan Eights, in his day a well-known physician in Albany, and Jonathan was the son of Abraham, whose obvious piety won for him among his town folk the sobriquet of "Father" Eights. The specified qualities of sire and grandsire seem not to have descended far. James was born in Albany in 1798 in his father's fine Dutch house, which stood at the corner of North Pearl and Columbia streets, just opposite what is now the Kenmore Hotel, in the heart of the city's business district. A century ago this was the

center of old Dutch residence. Thereabouts were the Douws, the Terwilligers, the Huns, the Van Schaicks and Van Vechtens, the Ten Broecks and Ten Eycks, the Zerbrugges and the widow Visscher, and it was among the streets of the old town, still lined with its picturesque high-peaked houses, that young Eights got strong impressions of his environment. I say this because, if there is any memory of Eights in the town of his birth, it is of him as the artist who drew a series of color sketches of the streets of old "Albany in 1805"—pictures which have been copied so often that some of them are quite likely to be found in the homes of most of the old families. This skill with pencil and brush Eights developed very early and I am assured by one of his contemporaries, Mr. Albert Lawtenslager, now a man ninety-four years old, that these pictures were made while Eights was still a lad, though the very early date "1805" implies a memory or a tradition of houses and streets.<sup>1</sup>

I must say here that the records of the whole long life of James Eights are so particularly fragmentary that a diligent search has resulted in a mere matter of shreds and patches. Obviously the young man was possessed by a strong love of nature. How he indulged and promoted it we do not know, but may believe that, with the books he could get and the help he could draw from others, he was his own guide

<sup>1</sup> As a literary curiosity evincing a treacherous poetic license in dealing with prosaic facts of history, the inquisitive reader may be interested in a prettily written account of "Albany Fifty Years Ago" which appeared anonymously in *Harper's Magazine* for 1857 (Vol. XIV.), abundantly illustrated with woodcuts of the streets of Old Albany and with word pictures of its residents. These woodcuts were all copies of the sketches made long before by Eights, though no reference is made to the fact. It is not a very honest story for the anonymous writer begins it: "I am an Albany Knickerbocker—a Dutchman of the purest Belgic stock"—and he was nothing of the sort—and then he describes himself as a silver-haired man of eighty not many years away from his queue and cocked hat; while he was actually in his sunny forties and had little if any knowledge of the scenes he represented. Looking under the woodcuts one sees the imprint "Lossing and Barritt" and looking again into the list of authors of such unsigned articles published some years later, finds this author's name—Benson J. Lossing. The distinguished historian and engraver was not a citizen of Albany, not a Knickerbocker, but a Quaker with a little Holland blood, and he should at least have given credit to Eights for his attractive pictures. But Eights was pillaged all his life and that is one reason why he got "lost." So Lossing's stories of the old residents and their homes in 1805 must have been, in large measure, hearsay, and he seems to have got rather mixed about the Eights family for he assigns a high gabled house up North Pearl street a few doors beyond "Webster's Corner" (State and Pearl) to William Eights who is said by him to have been driven from New York in 1776, after the British occupation, because of his Whig sentiments. There never was but one Eights family in Albany and the head of it then was Abraham Eights. He doubtless came from New York and he may perhaps have lived in this house, but if he did his son, Dr. Jonathan, built the house we have referred to far up the street near the Fox Kill.

and master in his study of the rocks, the plants and the animals about his home, in all of which we know he was deeply interested. What he had of the schools seems to have been only from those of his own town, but when he came to the time of fixing his career in life, he naturally turned to medicine; it was his father's, it should be his, and it afforded a better chance of close touch with natural history than any other. And so perhaps for this reason James Eights became a physician.

He was to be now known through life as Doctor Eights, but he seems never to have practised medicine. It is here, along through the years of his young manhood, that there is neither record nor story, and it is not till the event of the Fanning voyage that this unwilling escupalian cut the first and almost only notch in the tally stick of his real career. Through influences we do not know but which were a testimony of his recognized ability in natural history, he was appointed naturalist to the "Exploring Expedition of 1830," that first United States voyage of discovery. There is not a word in any record left by him or his shipmates that indicates whether he sailed on the *Seraph* or the *An-nawan*, but the two brigs seem to have kept together and shared their troubles. Indeed, so far as I can find, his name was never mentioned in any record as a member of this scientific company by any one except Captain Fanning and Eights himself.

As I write now of Doctor Eights's admission to quasi-official scientific service on this cruise of discovery, I call to mind the characterization of the man by my chief and Eights's contemporary, Professor James Hall, the distinguished geologist of New York from 1836 to 1898, who frequently spoke to me of his high regard for Eights's extraordinary scientific talents. He must have had a very close touch with all the natural science of his day, however he got it, for this is evident in the technical reports of his explorations and his subsequent writings.

Congress had "approved" this expedition in June, 1829, and the two brigs left New London in October, headed straight for the Antarctic, but with orders to meet at Staaten Island in case they got separated on the way. Directly they left the home port they did lose each other, and neither saw its consort till the distant island was reached. Staaten Island lies at 55° just off the east point of Fuego. It is an island that has figured often in the experiences of the explorers, for, barren spot as it is, it lay on the Cape Horn course and was a point of departure for the short and sharp attack on the seals of the Antarctic ice front. Thence one of the boats, probably the *Annawan*, but perhaps both, put out for the South Shetland Islands—those remote spots of whose enormous supply of seals abundant evidence had come by the American whaling fleet and had beyond doubt helped to substantiate this expedition. Now in this year 1829 what was known of these South Shetland Islands is the following:

Students of southern explorations seem to have little doubt that the

first to see them was Dirck Gerritse, whose good ship *De Blyde Booschap* in 1599 was driven by a gale far to the south of Magellan when her captain sighted in the distance the tops of some snow-clad mountains. In itself this record was of much the same worth as the discovery of "Crocker-land." It is as equally certain that the first trustworthy knowledge of them came from the American sealers and whalers who had found them out as early as 1812. For years these American ships resorted thither, but no record of the new lands was laid down till the English skipper, Captain William Smith, observed them in 1819, made them out to be a chain of islands and called them the *New South Shetlands*. Fanning whimsically says:

We Yankees might with more propriety after our rediscovery, claim them and name them *South Martha's Vineyard*, or something else.

Smith returned to Valparaiso, told his story to Captain Sheriff of the British frigate *Andromache*, and Sheriff detailed Lieutenant Bransfield to accompany Smith back to the islands, and they two are said to have determined the extent of the group. Gerritse, Smith and Bransfield all have their names perpetuated in the geography of the region—Dirck Gerritse Archipelago, Smith Island and Bransfield Strait. Fifteen months later came the Yankee brig *Hersilia*, Captain J. B. Sheffield, Nathaniel B. Palmer, mate, and they gave names to the individual islands from west eastward, but these have been ignored for the names of to-day.

Thus when the Yankee brig of 1829 with its scientific supercargo, Eights, aboard, picked up the islands only so little as has been indicated was known of them, and all that has been written since will barely enlarge our knowledge of them beyond that given by Dr. Eights in his *Remarks on the New South Shetland Islands*, communicated to the Albany Institute in 1833.<sup>2</sup> There is in this descriptive account a pleasing diction, and an effective phrasing, tinged by a kind of Wordsworthian

<sup>2</sup> *Transactions of the Albany Institute*, Vol. 2, p. 58. The full title is: "Description of a new Crustaceous Animal found on the Shores of the South Shetland Islands, with Remarks on their Natural History. By James Eights, Naturalist to the Exploring Expedition of 1830, and Corresponding Member of the Albany Institute."

The "Antarctic Manual," prepared for the use of the National Antarctic Expedition in 1901, by George Murray, with preface by Sir Clements Markham, contains a supposedly complete bibliography of the Antarctic, but there is, in a list of 878 titles, no single reference to Eights's papers nor to the expedition to which he was attached; neither to the *Annawan* or *Seraph*, the *Hersilia* or *Sheffield*, Captain N. B. Palmer, discoverer of Palmer's land in 1820, is confused with J. C. Palmer, whose title to fame seems to lie in a mariner's song written by him in 1868; Titian Peale, of the Wilkes Expedition, is called Titus Peale, and so on. Contemporary reviewers in American scientific and literary magazines ignored Eights entirely though steeping their pages with the work of other explorers (*vide, e. g., Silliman's Journal, Knickerbocker Magazine, North American Review*).

color, which clothes the rawness of the subject, quite too obviously exposed in the accounts of later writers. His sentences are worth reading, and in the light of new knowledge it is to be remembered that his descriptions, ignored by time, were written eighty-six years ago. To establish Eights in his true estate it is well to extract freely from his accounts of these islands.

Speaking generally of their physiography, he says:

They are formed by an extensive cluster of rocks rising abruptly from the ocean, to a considerable height above its surface. Their true elevation can not easily be determined, in consequence of the heavy masses of snow which lie over them, concealing them almost entirely from the sight. Some of them, however, rear their glistening summits to an altitude of about three thousand feet, and when the heavens are free from clouds, imprint a sharp and well-defined outline upon the intense blueness of the sky: they are divided everywhere by straits and indented by deep bays, or coves, many of which afford to vessels a comfortable shelter from the rude gales to which these high latitudes are so subject. When the winds have ceased to blow and the ocean is at rest, nothing can exceed the beautiful clearness of the atmosphere in these elevated regions. The numerous furrows and ravines which everywhere impress the snowy acclivity of the hills are distinctly visible for fifty or sixty miles, and the various sea-fowl, resting upon the slight eminences and brought in strong relief against the sky, oftentimes deceive the experienced eye of the mariner by having their puny dimensions magnified in size to those of the human form.

The sun, even at midsummer, attains but a moderate altitude in these dreary regions, and when its horizontal beams illumine these masses of ice, their numerous angles and indentions catching the light as they move along, exhibit all the beautiful gradations of color from an emerald green to that of the finest blue. Some of them whose sloping sides will admit of their ascent, are tenanted by large assemblages of penguins, whose chattering noise may be heard on a still day at an incredible distance over the clear smooth surface of the sea. When the storms rage and the ocean rolls its mountain wave against their slippery sides, the scene is truly sublime. Tall columns of spray shooting up far above their tops, soon become dissipated in clouds of misty white; gradually descending, they envelope the whole mass for a short space of time, giving to it much the appearance of being covered with a veil of silvery gauze. When thus agitated they not unfrequently explode with the noise of thunder, scattering their fragments far and wide over the surrounding surface of the deep.

The sky too in these latitudes presents a very singular aspect; being most generally filled with innumerable clouds, torn into ragged and irregular patches by the wild gales which everywhere race over the Antarctic seas; the sun as it rises or sets, slowly and obliquely in the southern horizon, sends its rays through the many openings between, tingeing them here and there with every variety of hue and color, from whence they are thrown in mild and beautiful reflections upon the extensive fields of snow which lie piled on the surrounding hills, giving to the whole scene for a greater part of the long summer day, the ever varying effect of a most gorgeous sunset.

This is certainly a toothsome and pictorial dressing for the bare bones of the Antarctic, which challenges only an artist's palette.

It is worth while taking note of Eights's geological observations. The reader should bear in mind that they were the first ever made in

the Antarctic and were put down by a man who was in his time reckoned a geologist.

The geological features that these islands present in those highly favored situations, where the continuous power of the winds has swept bare the rocks, correspond in a great measure with their desolate and dreary aspect. They are composed principally of vertical columns of basalt, resting upon strata of argillaceous conglomerate; the pillars are united in detached groups, having at their bases sloping banks constructed of materials which are constantly accumulating by fragments from above. These groups rise abruptly from the irregularly elevated plains, over whose surface they are scattered here and there, presenting an appearance to the eye not unlike some old castle crumbling into ruin, and when situated upon the sandstone promontories that occasionally jut out into the sea, they tower aloft in solitary grandeur over its foaming waves; sometimes they may be seen piercing the superincumbent snow, powerfully contrasting their deep murky hues with its spotless purity. Ponds of fresh water are now and then found on the plains, but they do not owe their origin to springs, being formed by the melting of the snow. . . .

A few rounded pieces of granite are occasionally to be seen lying about, brought unquestionably by the icebergs from their parent hills on some far more southern land, as we saw no rocks of this nature *in situ* on these islands. In one instance, I obtained a boulder nearly a foot in diameter from one of these floating hills. The action of the waves has produced little or no effect upon the basalt along this coast, as its angles retain all the acuteness of a recent fracture, but when the conglomerate predominates, the mass is generally rounded.

The color of the basalt is generally of a greenish black. The prisms are from four to nine sided, most commonly however of but six, and from three to four feet in diameter; their greatest length in an upright position above the subjacent conglomerate is about eighty feet. Their external surfaces are closely applied to each other, though but slightly united, consequently they are continually falling out by the extensive power of the congealing water among its fissures.

Clusters of these columns are occasionally seen reposing on their side in such a manner as to exhibit the surfaces of their base distinctly, which is rough and vesicular. When this is the case they are generally bent, forming quite an arch with the horizon. When they approach the conglomerate for ten or twelve feet, they lose their columnar structure and assume the appearance of a dark-colored flinty slate, breaking readily into irregular rhombic fragments; this fine variety in descending, gradually changes to a greenish color and a much coarser structure, until it passes into a most perfect amygdaloid, the cavities being chiefly filled with quartz, amethyst and chalcedony. . . . The effect produced upon it by the action of the file is very slight; the steel elicits no sparks; the fragments are angular with an imperfect conchoidal fracture; its structure is coarsely granular and uneven, and is composed essentially of hornblende, feldspar and a greenish substance in grains much resembling epidote; crystals of leucite of a yellow and reddish tinge are disseminated throughout the mass whose fractured surfaces strongly reflect the rays of light to the eye; in some places it sensibly affects the needle, owing no doubt to its iron. Veins of quartz frequently traverse the fine variety, some of them containing beautiful amethysts.

The basis rock of these islands, as far as I could discover, is the conglomerate which underlies the basalt. It is composed most generally of two or three layers, about five feet in thickness each, resting one on the other and dipping to the southeast at an angle of from twelve to twenty degrees. These layers are di-



vided by regular fissures into large rhombic tables, many of which appear to have recently fallen out, and now lie scattered all over the sloping sides of the hills, so that the strata when seen cropping out from beneath the basalt present a slightly arched row of angular projections of some considerable magnitude and extent.

The upper portion of this conglomerate for a few feet is of a dirty green color, and appears to be constructed by the passage of the amygdaloid into this rock, the greenish fragments predominating, and they are united to each other principally by zeolite of a beautiful light red, or orange color, together with some quartz and chalcedony.

The minerals embraced in this rock are generally confined to its upper part, where it unites and passes into the incumbent amygdaloid; many of them are also in common with that rock. They consist chiefly of quartz, crystalline and amorphous, amethyst, chalcedony, cachalong, agate, red jasper, felspar, zeolite, calcareous spar in rhombic crystals, sulphate of barytes, a minute crystal resembling black spinelle, sulphuret of iron and green carbonate of copper.

The only appearance of an organized remain that I anywhere saw was a fragment of carbonized wood imbedded in this conglomerate. It was in a vertical position, about two and a half feet in length and four inches in diameter: its color is black, exhibiting a fine ligneous structure, the concentric circles are distinctly visible on its superior end, it occasionally gives sparks with steel, and effervesces slightly in nitric acid.

In this very detailed account of the columnar basalts with the sandstone conglomerate into which they are intruded, and the metamorphism of the contact zone, Eights first laid hold of structures which have been recorded again by later observers. The sandstones seem to be the same as that called by Ferrar of the *Discovery* the "Beacon sandstone" which with its volcanic sills covers great areas of South Victoria Land. Debenham of the Scott Expedition has written of them. In 1892 Larsen at Seymour Island just east of Graham Land, found fossils, the first, says Nordenskiöld and after him Amundsen, winner of the South Pole, ever taken in the Antarctic. But here was Eights more than 60 years before, knocking out fossil wood from the sandstones of the South Shetlands—wood which, in more than remote probability, pointed toward that mysterious Gondwana Land which has been thought to have bound Antarctic America to the Orient during the most of its geological history. Shackelton found seams of coal and fossil wood in this Beacon sandstone, of which Schetelig says, "this belongs to the Upper Devonian or Lower Carboniferous." Now with the richness of fossil life recently brought home by Andersson and Nordenskiöld, Amundsen, Shackelton and the men of Scott, let us acknowledge the keen-eyed record and the intelligent interpretations of the Albany naturalist.

Eights was among the first observers to make record of the active volcanoes in the vicinity of these islands, and what was then called Palmer's Land—the land, which passing down the years with various designations, has slipped first its American hawser and then its French (Louis Philippe Land), to tie up at last with an Englishman, Graham.

He saw and took note of that remarkable half-submerged crater, Deception Island, soon to be much more fully described by the Englishman, Foster, a year or two later.

To the botanical species listed by Eights as composing the flora of these islands, later years may have brought some additions. Of this I can not be sure, but he says:

The *Usnea fasciata* Torrey is most common. A species of *Polytrichum* resembling the *alpinum* of Lin., one or two lichens and a fucus found in the sea along the shores—when you add to these an occasional plant of a small species of *avena*, you complete the botanical catalogue of the islands.

Then, in his picturesque way, Eights takes up for description the water mammals, the sea-elephant (*Phoca leonina*; I am using his designations), the sea-leopard, the fur seal (*P. vitulina*).

There is also a fourth species, which I have no recollection of ever seeing the slightest notice of. It is probably not common, as I saw but one; it was standing on the extremities of its fore-feet (flippers), the head and chest perfectly erect, abdomen curved and resting on the ground, the tail was also in an upright position; the animal in this attitude bore a striking resemblance to the representations we frequently meet with of the "mermaid," and I think it was undoubtedly one of the animals of this genus that first gave origin to the fable of the maid of the sea. I regret that I could not obtain a nearer view of this interesting animal. When I approached within one hundred feet, it threw itself flat and made rapidly for the sea: it appeared about twelve or fifteen feet in length, and distinctly more slender in proportion than any of the other species, so much so that the motion of the body when moving seemed perfectly undulating. Some of the seamen had seen them frequently on a former voyage, and mentioned that they were known among sealers by the name of sea-serpent, from this circumstance. Some of the teeth were brought to me which had been picked up on the beach. The crown of the grinders is deeply and singularly five lobed.

When these [other] animals resort to the shores for the purpose of breeding or shedding their hair, they are in fine condition. During this time they require no food, existing by the absorption of their fatty matter: if killed at this period, you generally find a quantity of small stones in the stomach, swallowed most probably for the purpose of keeping that organ distended and preventing its internal surfaces from adhering to each other. When the season for returning to the sea arrives, these stones are ejected on the beach, and they proceed in search of their ordinary food, which is chiefly penguins. A singular character in the habit of these animals is the faculty they possess of shedding tears when in any way molested. The eyes becoming suffused and the large tear-drops chasing each other in quick succession over their wrinkled faces, creates quite a sympathy in the breast of the beholder.

He also describes the fin whale (*Balaena physalis*), right whale (*B. mysticus*), the grampus, dolphin and porpoise—perhaps a fairly complete statement of this fauna as now known, though they are now traveling under somewhat different names.

In present days great interest has attached to the birds of these latitudes, and pretty tales of the whimsical Antarctic penguins have been the delight of several recent writers. Let us see what Eights had to say of them in 1830:

The *Aptenodytes patagonica*, Gm. (king penguin) is the largest and by far the most beautiful of the species, and may be seen in great numbers covering the shores for some considerable extent. They are remarkably clean in their appearance, not a speck of any kind is suffered for a moment to sully the pure whiteness of the principal part of their plumage: their upright position, uniform cleanliness, and beautiful golden yellow cravat, contrasts finely with the dark background by which they are relieved, so that the similitude is no unapt one, which compares them to a regiment of soldiers immediately after parade. The females lay but one egg on the bare ground, which is rather larger than that of a goose, and of about equal value as an article of food, but differs a little in shape, being more tapering at its smaller end. The egg lies between the feet, the tail being sufficiently long to conceal it effectually from the sight. When approached they move from you with a waddling gait, rolling it along over the smooth surface of the ground, so that a person not acquainted with the fact might pass through hundreds of them without discovering it. The *Spheniscus antarcticus* Shaw (rookery penguin), is more numerous than any of the other species, assembling together in vast congregations, occupying the smooth strips of plain for a mile or more in extent; passing through them, they barely give you sufficient space, picking at your legs, and keeping up a continual chatter. Their whole appearance as you walk along brings powerfully to your recollection the story of Gulliver, striding among the Lilliputians.

Sixteen other species of birds are mentioned by him in their Latin dress. And then, first again in this field, he mentions the Mollusca—three species, a *Pholas*, a *Nucula* and a *Patella*, all new to science, he thought.

This account of the South Shetlands was perhaps Dr. Eights's most notable contribution to science, but it was rather general and did not represent the total outcome of his investigations. In connection with it, in the *Transactions of the Albany Institute*, he described<sup>3</sup> under the name *Brongniartia trilobitoides* a crustacean of which he says:

I was convinced that [it] came nearer to the long lost family of Trilobites than anything hitherto discovered.

Amos Eaton, the distinguished teacher and Eights's friend, had the same conviction, for he says of this creature<sup>4</sup> when describing the trilobite genus *Brongniartia* (a name of his own contrivance):

It is my opinion that Dr. Eights has specimens of two distinct species of this genus which he collected in the southern ocean.

Eights thought that the species of Eaton's genus belonged to genera already employed by Jacob Green and DeKay, and so in the mutual scramble to honor Alexander Brongniart, he appropriated the word *Brongniartia* for his "living trilobite." Eights's drawings of his crustacean are beautifully effective and detailed and to aid in its illumination he adds a picture of the Silurian trilobite *Lichas Boltoni*. The living trilobite waited seventy years for rediscovery. Mr. Hodgson, reporting

<sup>3</sup> As cited above.

<sup>4</sup> "Geological Textbook," 2d ed., 1832.

for the "Discovery" Expedition, describes and figures it under the name of *Serolis trilobitoides*.

In another paper, a year or two later, but printed in the same volume of the Albany Institute's *Transactions*, Eights describes another strange crustacean,<sup>5</sup> illuminated by two exquisite plates. This is his *Glyptonotus antarctica*, an isopod-looking creature, of which its finder, still impressed by his acquaintance with New York State fossils, remarks:

This beautiful crustacean furnishes to us another close approximation to the long-lost family of the Trilobite.

Doctor Chilton of Christchurch, New Zealand, informs me that this crustacean was found by the German Transit of Venus Expedition to South Georgia in 1882-3 and was redescribed by Pfeffer in 1887. "It does not," he says, "seem to have been collected by the more recent English, French and German Antarctic expeditions." Doctor Chilton thinks that the species is among the specimens brought home by the Scottish Antarctic Expedition.

Still a third paper with other fine drawings was published by him in 1837 in the first volume of the *Journal of the Boston Society of Natural History*,<sup>6</sup> and gave an account of *Decolopoda australis*, an unbelievable ten-legged pycnogonid, the first thing of its kind. Dr. Leon J. Cole, writing to me from Cambridge some years ago, says of this:

A ten-legged pycnogonid such as *Decolopoda* was an unheard of thing until Eights described this one, and for some reason his discovery appears never to have come to the attention of students of the group, for nowhere, so far as I have been able to find in the writings since his paper was published, has mention been made of the remarkable fact. When I looked up Eights's paper a year or two ago I thought at first that a mistake had been made in the drawing and one too many pairs of legs put on the animal. . . . I was not so much surprised as I should otherwise have been when a paper appeared this winter (1905) by Mr. J. V. Hodgson, naturalist on the *Discovery*, describing a ten-legged pycnogonid taken by the National Antarctic Expedition in McMurdo Bay, the ship's winter quarters. Mr. Hodgson named his form *Pentanymphe* and says that the presence of a fifth pair of legs is a "character which separates it from all the Pycnogonids hitherto known." . . . I then wrote to Mr. Hodgson calling his attention to Eights's paper, which it appears had been brought to his notice in the meantime, and in reply he informs me that among the Pycnogonida collected by the Scottish Antarctic Expedition he has found specimens which agree in all essentials with those described so long ago by Eights.

A more recent letter from Dr. Cole from Madison (1915) says that the Scottish Expedition found fifteen specimens of Eights's species in Scotia Bay, South Orkneys, and the French Expedition another species of this genus.

<sup>5</sup> "Of a New Animal Belonging to the Crustacea Discovered in the Antarctic Sea."

<sup>6</sup> "Description of a New Animal Belonging to the Arachnides of Latreille; Discovered in the Sea along the Shores of the New South Shetland Islands," p. 203.

The "Voyage of Discovery" and its results were after all a matter of no slender record, and Eights's hours seem now to have become of rather idle and impecunious ease. In the years from 1835 to 1840 he wrote anonymously for the *Zodiac*, an Albany magazine of distinctly cultural pretension, articles on the flowers, clouds, weather, insects, birds, mollusca, geology, the lowering of the Hudson River, elevated beaches, turtles, sun-spots, fossils, minerals, constellations, all local observations of a well-stocked mind belonging to an out-of-doors man and naturalist. Somewhere about this time or earlier he must have invented the name "Cocktail" or "Cauda-galli grit" for one of the New York geological formations. It was a name that came into general use and was ascribed to Eights by the official geologists of the state who adopted and continued to use it till it was displaced by the present substitute, "Esopus grit."

But during these years other things were brewing in the line of exploring expeditions. On the Fanning expedition with Eights, as a member of the scientific corps, had been John N. Reynolds. Reynolds was not a man of science, but a landsman from the Middle West to whom the ancient call of the sea was invincible. Of him and his associates Captain Fanning says, in writing to the Secretary of the Navy, Mahlon Dickerson (1836):

Mr. Reynolds having been one of the individuals in the little American Exploring Expedition (the first patronized by government) of the brigs *Seraph* and *Annawan*, etc., . . . two of the gentlemen companions of the voyage, Messrs. John Frampton Watson, of Philadelphia, and James Eights, of Albany. These are profound scientific men.

To Reynolds has been given the credit of initiating the sentiment and leading the campaign which resulted in the organization of the Wilkes Exploring Expedition. "The father of this project was John N. Reynolds," said President Gilman in his "Life of James Dwight Dana," and at some length he refers to Reynolds's vigorous propaganda on its behalf, both before and outside of Congress. But, says Secretary Dickerson to Captain Thomas Ap Catesby Jones (who had been first selected to command the proposed expedition) in a letter of 1836:

Captain Fanning long since proposed a South Sea exploring expedition and has been urging it ever since. Ever since the administration of Mr. Madison, so far as there is merit in originating and urging, this measure is due to Captain Fanning.

On this new expedition Eights wanted to go, and his experience was beyond doubt reasonable guaranty of his fitness. And as the plans grew, he filed with the Secretary of the Navy his application for appointment as *geologist*. Besides his experience afloat and ashore, he had the endorsement of Professor John Torrey, the eminent botanist, and doubtless of Captain Fanning, and he was duly appointed by Secretary

Dickerson, of which appointment he makes acknowledgment in **June, 1837**. Then, two months after, the appointees of the scientific corps got together in Philadelphia and fixed up their assignments. Reynolds, who was most active in organizing the supercargo, did not want Eights at all; Torrey had written to Dickerson that he never intended to recommend Eights as geologist; he and all the rest wanted Dana for mineralogist and geologist and Eights for zoologist, and when the men themselves met to determine their assignments (this was left by the Secretary to their own discretion) Eights withdrew his choice and contented himself with the field of "organic remains." Eights's appointment was notified to Congress by the Secretary, he was permitted to buy his equipment including \$300 worth of books, and he received pay in advance of sailing until the appropriation was exhausted. But nevertheless, for reasons which appear on no records that I have been able to find or that have ever been referred to, Eights was omitted in the final make-up of the corps of scientific men. He was not alone in this mishap and others who suffered with him joined later in an appeal to Congress for remuneration for wasted time and service.

What brought about this elimination of Eights from the Wilkes Expedition there is none left to tell. To have had his functions restricted by his colleagues to that of paleontologist of a marine expedition seems a reduction to the lowest terms, dangerously close to an elimination, which lay beyond their power. And yet Dana, for whom Eights allowed himself to be effaced, went as "mineralogist" and came back as a zoologist of high distinction. Perhaps Eights, with his experience and versatility, might have done as well, but the American Philosophical Society, in responding to a request of the Secretary of the Navy for a plan of organization of the scientific corps, did not include a paleontologist, and we have just observed that Mr. Reynolds, who was clothed with no small authority in this matter of composing the personnel of the corps, did not approach or recommend Eights. Wherever the cause lay, in disaffection acquired by Reynolds for Eights while on their trip to the Antarctic, in the thinly veiled jealousies common to scientific men of the time,<sup>7</sup> or perhaps in Eights's personal habits, this crushing of his hopes was the downfall of his career. Whatever justification the Secretary of the Navy may have found for his final action in the case, Eights from this time on ceased to live; though he remained on earth for nearly a half century longer.

The rest of the story is short. There are no records of Albany that

<sup>7</sup> As a notable example of the bumptious democracy of the time, the series of anonymous letters publicly addressed by J. N. Reynolds to Secretary Dickerson on the subject of the expedition, are hardly to be surpassed for personal indelicacy, disrespect for high place and rudeness of address, and they were assembled and printed by their author over his own name.

tell of Eights's activities during the years that followed. Only the directories show his occasional presence up to 1853. In his contributions to the *Zodiac* there are passages which show a rather intimate acquaintance with Indian customs and life, and Mr. Lawtenslager has intimated that after the sailing of Captain Wilkes, Eights did go out among the western tribes, but if under government auspices I have found no record of it. In 1853 his name appears for the last time in the Albany directory, where he is entered as "draughtsman and geologist." There is no evidence among the very full documents in my possession relating to the Geological Survey that Eights had any official connection with it, and I fancy this title means that he was doing drawing and geology for Dr. Ebenezer Emmons for his *geological* reports on the agriculture of New York. These were days when the Taconic controversy was hot and Emmons's "Taconic system" was struggling for life. Emmons was writing his full exposition of it for his "Agriculture of New York," and his colleagues during the days of the first State Geological Survey (1836-42) had vigorously antagonized the entire proposition. Ebenezer Emmons, Jr., who knew Eights as his father's friend, has told me that Eights had sympathized with and stood by the elder Emmons in these contentions and no such man could have gained employment from the New York State Geologist of 1853. In 1852 Eights published a paper in the *Transactions of the Albany Institute* on the surficial geology of Albany.<sup>9</sup> It contains much that is interesting even to-day regarding the composition and hydrology of the sands and clays of old Lake Albany and gives one of the earliest illustrations of the disrupted clay strata broken into by dragging icebergs.

This is Dr. Eights's last appearance, and of what remained of his life little is to be said further, or little known, and even that is hardly worth the telling. Mr. Lawtenslager, who came to Albany in 1848 and started in business on State Street just below Green, tells me that in the 50's he and Eights had rooms together there. Eights was unmarried and alone, and he was poor—so poor, indeed, that it is clear to me from the very guarded statements of his old companion, that the friendship of the two meant subsistence for one. I have heard, too, of another great disappointment in his life—one that turned his heart sour and kept him a bachelor. So his sands ran on—he had lost his grip—through the sixties and into the seventies; he was an old man now and in his growing feebleness he sought the home of a sister living in Ballston, and there died in 1882, eighty-four years old.

James Eights left his mark—and now let us judge of the size of Hercules from his foot.

<sup>9</sup> "Observations on the Geological Features of the Post Tertiary Formation of the City of Albany and Its Vicinity" (Vol. 2).